



3.22 UNAVOIDABLE ADVERSE IMPACTS AND OTHER ENVIRONMENTAL CONSIDERATIONS

3.22.1 Irreversible Commitments of Resources

Irreversible commitments are decisions affecting nonrenewable resources such as soils, wetlands, unroaded areas, and cultural resources. Such commitments are considered irreversible because the resource has deteriorated to the point that renewal can occur only over a long period of time or at great expense, or because the resource has been destroyed or removed.

The harvest of old-growth redwood and Douglas-fir forest and trees would remove these components from PALCO's ownership. Approximately 581 acres of old-growth redwood, 8,886 acres of residual redwood, 2,439 acres of old-growth Douglas-fir, and 3,560 acres of residual Douglas-fir would be harvested under Alternative 2. These types of forests and trees would not be redeveloped for perhaps 200 or 300 years. As such, this would represent an irreversible commitment of resources.

The construction of roads, such as those providing access for timber harvesting, would be an irreversible action because of the time it takes for a constructed road to revert to natural conditions. However, when roads are decommissioned they can again attain natural conditions. The magnitude of these irreversible effects would be inversely related to the size of the proposed Headwaters Reserve and any additional purchases made by the state and would particularly impact existing unroaded areas. More roads would be constructed on Elk River Timber Company and PALCO forest lands under the No Action

Alternative and Alternative 2a than under the other alternatives. The inclusion of approximately 7,500 acres of commercial timber land in the proposed Headwaters Reserve would result in significantly fewer miles of road construction in the Project Area. The amount of decommissioned roads would also reduce the irreversible commitment of resources.

On the PALCO and Elk River properties proposed for acquisition by the federal government and the State of California for the proposed Headwaters Reserve, few access roads would be constructed in association with the development of the proposed Headwaters Reserve. These roads would be identified in the management plan for the Reserve, and the environmental effects from the construction of the roads would be evaluated in the EIS associated with the adoption of the management plan. No new roads, however, would be approved by this action to acquire PALCO and Elk River forest land for the proposed Headwaters Reserve.

Cultural resources may be located on Elk River Timber Company lands acquired by PALCO. Since these lands are currently managed as commercial forest lands and would continue to be managed as such under some of the proposed actions, there would be no change in the risk of irreversible commitments of these cultural resources. Under the alternatives, there could be a transfer of National Register-eligible sites to PALCO ownership. Additionally, there is a possibility that previously unidentified sites exist on the

lands proposed for acquisition. In either scenario, cultural resources could be negatively affected by either forest management practices or timber harvesting activities. Section 3.15 discusses these issues in more detail.

In contrast, the acquisition of PALCO and Elk River Timber Company forest lands would likely decrease the potential risk of irreversible commitment of cultural resources. Under existing conditions, there could be a transfer of National Register-eligible sites to state and federal ownership. Previously unidentified sites could also exist on the lands proposed for acquisition. The change in management of these lands from commercial forest management to the implicit preservation and conservation goals of a reserve would substantially decrease the likelihood of irreversible damage to cultural resources. Loss of old-growth habitat due to road clearing and right-of-way clearing on commercial forest lands retained by either PALCO or the Elk River Timber Company would be an irreversible effect because the old-growth habitat could not become reestablished without the passage of a very long period of time, perhaps 150 years or more. These negative effects on old-growth habitat would be inversely related to the size of the proposed Headwaters Reserve. Thus, the No Action Alternative would result in the greatest impacts, whereas Alternative 4 would protect all seven groves of old-growth habitat located on the PALCO and Elk River Timber Company lands.

3.22.2 Irretrievable Commitments

Irretrievable commitments of natural resources result in the loss of production or use of resources because of management decisions associated with the proposed alternatives. Opportunities are foregone for the period of time that the resources cannot be used. The production and use of Elk River Timber Company lands, if

acquired by PALCO, would be similar to present activities. In contrast, the use of PALCO and Elk River Timber Company lands acquired by the federal government and the state of California for the Headwaters Reserve would no longer be managed as commercial forest land. Thus, the use and production of natural resources on these lands would be lost.

3.22.3 Short-term Uses and Long-term Productivity

The acquired lands would be managed according to the standards and guidelines of the BLM-and state-adopted management plan for the proposed Headwaters Reserve and any plans developed for state-purchased property. These plans would prevent long-term loss in productivity.

3.22.4 Possible Conflict with Plans and Policies of Other Jurisdictions

NEPA regulations require a determination of possible conflicts between the proposed action and the objectives of federal, state, and local lands use plans, policies, and goals for the project area. The major land use regulations of concern are the Humboldt County General Plan, the California Z'berg-Nejedly Forest Practices Act, the management of Grizzly Flats State Park and Humboldt Redwoods State Park, and the Coastal Zone Management Act.

3.22.4.1 Local Plans

Humboldt County's land use plan provides goals and policies regarding the management of all non-governmental properties located in the county, including private timber lands. Elk River Timber Company lands proposed to be acquired by PALCO would be managed consistent with the County's General Plan. PALCO and Elk River Timber Company lands proposed for acquisition for the proposed Headwaters Reserve would be managed by the BLM in accordance with a management plan to be developed. This management plan would

be consistent with the goals and policies in the local government land use plan. Any plans developed for state-purchased property would have similar consistency. The relationship between PALCO management and the adjacent state parks is discussed in Section 3.11.

3.22.4.2 State Forest Practices Act

The California Z'berg-Nejedly Forest Practices Act provides direction for the management of privately held and state timber lands in California. Elk River Timber Company lands proposed for acquisition by PALCO would be managed under, and would comply with, those rules. In particular, the lands would comply with all regulated aspects of forest management, including stream buffers, clearcut size, road standards, and reforestation.

3.22.4.3 Coastal Zone Management Act

The proposed acquisition of land from PALCO and the Elk River Timber Company would not require review under the Coastal Zone Management Act. Lands acquired, however, would be managed in accordance with this Act.

3.22.5 Energy Requirements and Conservation Potential of Alternatives

The implementation of the alternatives would require the expenditure of energy (consumption of fuel). All the action alternatives provide substantial potential for conservation because of the various acreages considered for acquisition and protection in a publicly-owned Reserve.

3.22.6 Natural or Depletable Resource Requirements and Conservation Potential of Alternatives

All alternatives considered in detail are designed to conform to applicable laws and regulations pertaining to natural or depletable resources, including minerals and energy resources. The regulation of

mineral and energy activities on federal lands is defined under the U.S. Mining Laws Act of 1872 and the Mineral Leasing Act of 1920. Federally acquired lands, however, are not in the public domain and are not subject to the 1872 statute. Consequently, mining development is more difficult on acquired lands.

In the Project Area, the potential existence of mineral or energy resources is low. The potential for exploration and development within the proposed Headwaters Reserve cannot be fully assessed until policies regarding this issue are addressed in the future management plan for the Reserve. The establishment of the Reserve, however, would almost certainly eliminate the potential for exploration and development in the future because such development would fundamentally conflict with the purposes for which the Reserve would be established. Similar effects would be expected with respect to state-purchased lands.

Assessment of the conservation potential of the alternatives is tied to the existence and extent of the lands incorporated into the proposed Headwaters Reserve. Among the alternatives, the No Action Alternative provides the least potential for the conservation of the natural resources, as no Reserve would be established. The other alternatives incorporate various sizes of reserves, from Alternative 2a, which includes 5,766 acres of PALCO lands in the reserve; to Alternatives 2 and 3, which include the PALCO lands and the Elk River Timber Company lands totaling 7,503 acres; to Alternative 4, which includes 63,673 acres of combined PALCO and Elk River Timber Company lands. If Owl Creek and Grizzly Creek MMCAs were purchased by the state, their acreages would be added to those discussed above.

3.22.7 Urban Quality, Historic and Cultural Resources, and the Design of the Built Environment

Neither the immediate project area nor the parcels acquired by both PALCO and the federal and state governments contain urban areas. Therefore, the applicable concerns under this topic are historic and cultural resources as well as potential effects on the built environment. The goal of the BLM's CRMP is to preserve significant historic and cultural resources in the field setting and ensure that they remain available for future research, social/cultural purposes, recreation, and education. The direct, indirect, and cumulative effects of the alternatives on cultural resources have been evaluated. This evaluation concluded that there are adequate standards, guidelines, and procedures to protect historic and cultural resources and thereby meet the goals of the CRMP. As discussed in the Section 3.15, Cultural Resources, some cultural resources would be transferred from lands privately owned to lands managed by the BLM are acquired forest lands for the Headwaters Reserve or acquired by the state.

Acquisition of forest lands for the Headwaters Reserve or by the state would not affect the design of the built environment. Under the alternatives, the acquisition of productive forest land could reduce timber production in Humboldt County and possibly all of California. If significant, the reduction in annual harvests of timber could affect the price of lumber and wood products, which in turn could decrease the demand for wood products, especially in cases where builders could use other, less-expensive materials. Moreover, property owners could decide to scale-back or eliminate the amount of wood incorporated into the design of buildings. These potential effects are briefly discussed

in Section 3.13, Economics and Social Environment.

3.22.8 Effects of Alternatives on Consumers, Civil Rights, Minorities, Women, and Environmental Justice

The effects on consumers of the alternatives for the Headwaters Forest or state land acquisition are reflected in the discussion of the various goods and services supplied as a result of the proposed actions. In particular, these include potential effects on the price of lumber and wood products in the region and in the state of California caused by the decrease of thousands of acres of productive forest land in Humboldt County. See Section 3.13 for details on the analysis of the subject.

All actions have the potential to produce some form of impact, positive and/or negative, on the civil rights of individuals or groups, including minorities and women, and on environmental justice. Analysis of this potential impact is required by executive order. The purpose of the impact analysis is to determine the scope, intensity, duration, and direction of impacts resulting from a proposed action. For environmental or natural resource actions, such as proposed for the alternative, the analysis of potential civil rights impacts is an integral part of the procedures and variables associated with the social impact analysis. This analysis is discussed in the Economic and Social Environment Section (Section 3.13), the Heritage Resources and Traditional Cultural Uses Section (Section 3.15), and the Tribal Forest Resources and Other Indian Tribal Issues (Section 3.19).